

A SMALL OUTBREAK OF *EUPROCTIS RUBRICOSTA* FAWCETT
(LEPIDOPTERA, LYMANTRIIDAE) IN THE EASTERN
PROVINCE OF TANGANYIKA

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In December, 1952, a heavy infestation of castor oil plants (*Ricinus communis*) by lepidopterous larvae was noted at Mtibwa Estate by Dr. F. Leutenegger, Soil Chemist, Tanganyika Sisal Growers' Association.

Mtibwa Estate is a new estate near the village of Turiani, which lies about 80 miles north of Kilosa on the road to Handeni. It was planted in 1952 with castor oil (seed imported from Italy) and pawpaw (*Carica papaya*). In the surrounding area, a good deal of castor oil is grown by African cultivators.

No steps were taken to control the infestation, and by mid-January, 1953, it was found that the castor oil was completely defoliated and the larvae had begun to attack the pawpaw. The advice of the author was sought, and a visit made to the estate on 22nd January, 1953.

By this time about 70 acres of castor oil had been cut down, and the larvae were distributed over the grass. A large number had crossed the narrow track separating the castor oil from the pawpaw, and some of the latter trees were already fairly heavily attacked. The larvae were found particularly on the leaf bases, where the lower leaves had been cut away, and on the fruits, which had been cut for the collection of the juice. A number of fruits were almost completely consumed and some trees must have contained hundreds of larvae. Penetration into the pawpaw area had not proceeded beyond the tenth row. There was almost no attack on the leaves.

Elsewhere on the estate, 30 acres of castor oil remained standing and these bushes, though almost completely defoliated, were heavily infested. Here too, movement of larvae to nearby pawpaw trees had occurred.

A minor but very unpleasant feature of the infestation was the irritation produced by the urticating hairs of the larvae. A large number of larvae were to be found on both the inside and outside walls of the temporary European house on the estate, where they were seeking shelter in order to pupate. Numbers of pupae were also found in the cracks and crevices of the house.

CONTROL MEASURES. Some very makeshift tests were carried out in the laboratory before visiting the estate. 5% DDT in kerosene was found to kill only after more than 24 hours exposure. "Gammexane" P 520 (6.5% gamma) in water killed after 12 hours, but as this had been tried in the house in an unsuccessful attempt to get rid of the larvae, it was thought unwise to depend too much on it. "Dieldrin" wettable powder also required more than 12 hours to kill. "Gammexane" dust ("Agrocide" 7) and finely-

ground pyrethrum powder appeared to have a more rapid action, but the most rapid and complete kill was obtained with pyrethrum extract dissolved in kerosene. It was accordingly decided to use this as an emergency measure. Pyrethrum extract containing 25% pyrethrins was added to kerosene to give 0.3% pyrethrins and this was sprayed on very lightly using "Four Oaks Knapsack" sprayers. The high concentration was used to avoid damage to the plants by the kerosene. Unfortunately, much of the spraying was done by unskilled labour, and some of the trees received far too heavy a dose, with the result that a small number died. The results otherwise were quite satisfactory, as very few larvae could be found anywhere on the pawpaw two days after spraying. Those trees which were sprayed as lightly as was intended, were not damaged.

The narrow track between the castor oil and the pawpaw was widened and the earth dusted with "Agrocide" 7, to prevent re-infestation.

A number of adult moths were seen, and it is anticipated that these may become very numerous later.

Castor oil plants on some African plantations were examined. They were found to be also heavily attacked, and it cannot be expected that the area will yield much harvest this year. According to the local natives, these larvae are present every year, but do not normally cause damage. It seems very probable, however, that some reduction in yield is usual, and it may well be that the outbreak of 1952—53 was connected with the unusually dry weather.

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A CHECK LIST OF NATAL BIRDS

Readers who contemplate visiting South Africa will be interested to learn of the appearance of a check list of the birds of Natal and Zululand. This most excellent publication is the work of that indefatigable ornithologist, Mr. P. A. Clancey, Director of the Durban Museum & Art Gallery and is published by that institution.

In addition to being an up-to-date list of all species and races of birds known to occur in the areas covered, a brief account of the status of each is given and details of their distribution. The author is to be congratulated on producing such an accurate and useful addition to African ornithological literature.

The Editor.